

CLAIMS

What is claimed:

1. A method for self-throttling the use of computer resources by a computer task
executing on a computer system, said method comprising:
 - 5 receiving by said computer task a throttle specification for directing said
computer task's usage of said computer resources;
executing said computer task until a first unit of work is completed, said
computer task comprising said first unit of work and at least a second unit of work;
calculating the elapsed time of said first unit of work;
10 calculating a suspension time for said computer task based at least partially on
said throttle specification and said elapsed time; and
suspending said computer task for said calculated suspension time prior to
resuming execution of said computer task, whereby other computing tasks within
said computer system gain access to said computer resources during said suspension
15 of said computer task.
 2. The method of claim 1 further comprising resuming execution of said computer task
and commencing said second unit of work following the exhaustion of said
suspension time.

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3. The method of claim 2 wherein said computer task performs a database reorganization.

4. The method of claim 3 wherein said database is an IMS HALDB database.

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5. The method of claim 1 wherein said throttle specification is a percentage value, said percentage value representing the percentage of said computer resources on said computer system to be dedicated to said computer task.

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6. The method of claim 5 wherein said suspension time is calculated by using the formula $st = (et * (100 - pv)) / pv$ where st is said suspension time, et is said elapsed time and pv is said percentage value.

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7. The method of claim 1 wherein said computer task self-throttles the usage of said computer resources by said computer task in accordance with said throttle specification.

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8. A method for throttling the use of computer resources on a computer system during a database reorganization process comprising:

establishing a percentage of said computer resources on said computer system to be used for said database reorganization process;

5 utilizing said percentage in a throttle specification;

invoking said database reorganization process and providing said throttle specification wherein said percentage is passed to a self-throttled computing task in said throttle specification; and

10 prior to receiving notification that said database reorganization process is complete, initiating a transaction on said computer system wherein said transaction completes within a predetermined response time objective.

9. An article of manufacture for use in a computer system tangibly embodying computer instructions executable by said computer system to perform process steps for self-throttling the use of computer resources by a computer task executing on a computer system, said process steps comprising:

5 receiving by said computer task a throttle specification for directing said computer task's usage of said computer resources;

 executing said computer task until a first unit of work is completed, said computer task comprising said first unit of work and at least a second unit of work;

 calculating the elapsed time of said first unit of work;

10 calculating a suspension time for said computer task based at least partially on said throttle specification and said elapsed time; and

 suspending said computer task for said calculated suspension time prior to resuming execution of said computer task, whereby other computing tasks within said computer system gain access to said computer resources during said suspension
15 of said computer task.

10. The article of manufacture of claim 9 further comprising resuming execution of said computer task and commencing said second unit of work following the exhaustion of said suspension time.

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11. The article of manufacture of claim 10 wherein said computer task performs a database reorganization.

12. The article of manufacture claim 11 wherein said database is an IMS HALDB database.

13. The article of manufacture of claim 9 wherein said throttle specification is a percentage value, said percentage value representing the percentage of said computer resources on said computer system to be dedicated to said computer task.

14. The article of manufacture of claim 13 wherein said suspension time is calculated by using the formula $st = (et * (100 - pv)) / pv$ where st is said suspension time, et is said elapsed time and pv is said percentage value.

15. The article of manufacture of claim 9 wherein said computer task self-throttles the usage of said computer resources by said computer task in accordance with said throttle specification.

16. A computer system for self-throttling the use of computer resources by a computer

task executing on said computer system, said computer system comprising:

a computer;

computer program instructions for receiving by said computer task a throttle

5 specification for directing said computer task's usage of said computer resources;

computer program instructions for executing said computer task until a first unit
of work is completed, said computer task comprising said first unit of work and at
least a second unit of work;

10 computer program instructions for calculating the elapsed time of said first unit
of work;

computer program instructions for calculating a suspension time for said
computer task based at least partially on said throttle specification and said elapsed
time; and

15 computer program instructions for suspending said computer task for said
calculated suspension time prior to resuming execution of said computer task,
whereby other computing tasks within said computer system gain access to said
computer resources during said suspension of said computer task.

17. The system of claim 16 further comprising resuming execution of said computer

20 task and commencing said second unit of work following the exhaustion of said
suspension time.

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18. The system of claim 17 wherein said computer task performs a database reorganization.

19. The system of claim 18 wherein said database is an IMS HALDB database.

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20. The system of claim 16 wherein said throttle specification is a percentage value, said percentage value representing the percentage of said computer resources on said computer system to be dedicated to said computer task.

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21. The system of claim 20 wherein said suspension time is calculated by using the formula $st = (et * (100 - pv)) / pv$ where st is said suspension time, et is said elapsed time and pv is said percentage value.

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22. The system of claim 16 wherein said computer task self-throttles the usage of said computer resources by said computer task in accordance with said throttle specification.